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WAC 51-51-0313 Section R313 Automatic Sprinkler Systems

***Rebuttal to removing mandatory requirement and making it voluntary:**

The best way to ensure uniform standards of life safety within our state is to allow the requirement for mandatory sprinkler systems in new one- and two- family homes to remain in the body of the IRC. Several speakers mentioned removing mandatory sprinkler requirements from the IRC and allowing for local adoption. There are a couple of flaws with this path.

First, many of the smaller jurisdictions in eastern Washington are small enough to not have a governing body to adopt or propose any local ordinances. Often these districts consist of volunteer fire departments that utilize the services of state, county or larger districts for plan review and inspections. These districts would be in essence unprotected if the IRC did not make sprinklers mandatory as there would be no local process to fill the gap.

Second, currently state law does not allow a local jurisdiction to enact or adopt an ordinance with requirements more strict that those of the Washington Amended Codes adopted by the legislature. The current process includes the onerous requirement to prove a "unique condition" for a local jurisdiction when attempting to pass a sprinkler ordinance. Very few jurisdictions have been able to provide sufficient evidence to support "uniqueness" allowing for their ordinances to pass state level scrutiny and gain adoption. When a jurisdiction has gained approval the qualifying proof becomes more difficult for other jurisdictions and their proof has to be totally unique from the ones used before. Any similarities disqualify the argument for "unique".

The discussions reflected the need for dialogue and discussion with local authorities making the ruling, yet our current system does readily allow for this process. The requirement needs to remain with the body of the code to allow for the uniform protection of our citizens.

***Rebuttal to impediments to sprinkler system installation; ex. design, installation, cost and maintenance:**

The first thing to mention is that sprinkler systems in one- and two- family homes are substantially different that the typical commercial sprinkler system that most of us are familiar with. NFPA 13D is the nationally recognized design standard for these type of sprinkler systems. NFPA 13D has simplified the design and installation process to address just the life safety aspect, i.e. only occupied portions of the home are provided with sprinkler protection which simplifies the installation and lowers costs. While the sprinklers themselves are required to be listed the majority of the system components are not, the piping typically only has to meet ASTM, ANSI and AWS standards.

A 13D sprinkler system requires that fewer sprinklers be contained in the design remote area (typically 2) which affects the final pipe sizing. Further, many pre-engineered systems are also available. For a 1-story house 2,000ft^2 or less the required water supply duration is only 7 minutes which lessens the impact of water storage in areas where availability is an issue.

Another concern mentioned has been maintenance of the systems. One type of system permitted by NFPA 13D is a combination system. In this type of system the sprinklers and domestic piping are the same pipes. Additional pipes are run to provide multiple flow paths to each sprinkler which often allows for smaller pipe sizes on average and has a drastic affect on maintenance. These combined systems require minimal to no maintenance, as they are tied to the domestic so if all your plumbing works than the sprinkler system works also. This also allows for the installation of the system by a Level 1 certificate holder (which could be a plumber who takes the state testing to receive the certificate).

Further, these types of combined systems address another concern that is being raised in discussions with local water departments regarding backflow issues. A stand-alone sprinkler system would require backflow prevention which would then require yearly testing. When a system is combined the sprinkler system is just an extension of the domestic piping and no backflow prevention is required. Potable water runs through the pipes, which meet plumbing code requirements.

There are ways to reduce the cost of sprinkler system in single family homes that have not been addressed. The costing data; including references to additional taps and meters; are all based on systems whereby the sprinkler system is separate from the domestic system. As this is a life safety issue the most economical and practical system should be the one getting the most attention yet currently these types of systems are being short-changed in the dialogue occurring. These other options should be more fully explored before writing single family sprinklers systems off as impractical and detrimental to the housing market.